

**Exhibit 1**  
**USSN 10/532,067**  
**GRUE-004**

nt 3553-5280 of X02919

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3553          ttgaattc acttaataac ccaaagcatg tattacaaaa cttttctgtt
3601 ttctttaaca aaaaaaaga agctgaaata gcagaaactg aaaacacatt agaaaacaca
3661 aaaatattat tgaaacatta taaaggactt gttaaatatt ataatggtga atcatctcca
3721 ttaaaaactt taagtgaaga atcaattcaa acagaagata attatgccag tttagaaaac
3781 tttaaagtat taagtaaatt agaaggaaaa ttaaaggata atttaaattt agaaaagaaa
3841 aaattatcat acttatcaag tggattacat catttaattg ctgaattaaa agaagtaata
3901 aaaaataaaa attatacagg taattctcca agtgaaaata atacggatgt taacaatgca
3961 ttagaatctt acaaaaaatt tctcccagaa ggaacagatg ttgcaacagt tgtaagtgaa
4021 agtggatccg acacattaga acaagtcaa ccaaagaaac cagcatcaac tcatgtagga
4081 gcagagtcta acacaataac aacatcacia aatgtcgatg atgaagtaga tgacgtaatc
4141 atagtaccta tatttggaga atccgaagaa gattatgatg atttaggaca agtagtaaca
4201 ggagaagcag taactccttc cgtaattgat aacatacttt ctaaaattga aaatgaatat
4261 gaggttttat atttaaaacc tttagcaggt gtttatagaa gtttaaaaaa acaattagaa
4321 aataacgtta tgacatttaa tgttaattgt aaggatattt taaattcacg atttaataaa
4381 cgtgaaaatt tcaaaaatgt tttagaatca gatttaattc catataaaga tttaacatca
4441 agtaattatg ttgtcaaaga tccatataaa tttcttaata aagaaaaaag agataaattc
4501 ttaagcagtt ataattatat taaggattca atagatacgg atataaattt tgcaaatgat
4561 gttcttggat attataaaat attatccgaa aaatataaat cagattttaga ttcaattaaa
4621 aaatatatca acgacaaaca aggtgaaaat gagaaatacc ttcccttttt aaacaatatt
4681 gagaccttat ataaaacagt taatgataaa attgatttat ttgtaattca tttagaagca
4741 aaagttctaa attatacata tgagaaatca aacgtagaag ttaaaataaa agaacttaat
4801 tacttaaaaa caattcaaga caaattggca gattttaaaa aaaataacaa tttcgttgga
4861 attgctgatt tatcaacaga ttataaccat aataacttat tgacaaaagt ccttagtaca
4921 ggtatggttt ttgaaaatct tgctaaaacc gttttatcta atttacttga tggaaacttg
4981 caaggtatgt taaacatttc acaacaccaa tgcgtaaaaa aacaatgtcc acaaaattct
5041 ggatgtttca gacattttaga tgaaagagaa gaatgtaaat gtttattaaa ttacaaacaa
5101 gaaggtgata aatgtgttga aaatccaaat cctacttgta acgaaaaata tgggtggatgt
5161 gatgcagatg ccaaatgtac cgaagaagat tcaggtagca acggaaagaa aatcacatgt
5221 gaatgtacta aacctgattc ttatccactt ttcgatggta ttttctgcag ttctctaac
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MKIIFFLCSFLFFIINTQCVTHESYQELVKKLEALEDAVLTGYS  
LFQKEKMLNEGTSCTAVTTSTPGSKGSVASGGSGGSVASGGSVASGGSVASGGSVAS  
GGSGNSRRNTPSDNSSDAKSYADLKHRVRNYLLTIKELKYPQLFDLTNHMLTLCDN  
IHGFKYLIDGYEIEINELLYKLNIFYFDLLRAKLNDCANDYCQIPFNLKIRANELDVLK  
KLVFQYRKPLDNIKDNVGMEDYIKKNKKTIEINELIEESKKTIDKNKNATKEEEKK  
KLYQAQYDLSIYNKQLEEAHNLSVLEKRIDLKKNENIKELLDKINEIKNPPPANSG  
NTPNTLLDKNKIEEHEKEIKEIAKTIKFNIDSLFTDPLELEYLREKNKNIDISAKV  
ETKESTEPNEYPNGVTYPLSYNDINNALNELNSFGDLINPFDYTKEPSKNIYTDNERK  
KFINEIKEKIKIEKKKIESDKKSYEDRSKSLNDITKEYEKLLEIYDSKFNNDLTN  
FEKMMGKRSYKVEKLTHHNTFASYENSKHNLEKLTALKYMEDYSLRNIVVEKELKY  
YKNLISKIENEIETLVENIKKDEEQLEFKKITKDNKPDEKILEVSDIVKVQVQKVLL  
MNKIDELKKTQLILKNVELKHNIHVPNSYKQENKQEPYYLIVLKEIDKLKVFMPKVE  
SLINEEKNIKTEGQSDNSEPSTEGETTGQATTKPGQAGSALEGDSVQAQAEQKQA  
QPPVPVPVPEAKAQVTPPAPVNNKTENVSKLDYLEKLYEFLNTSYICHKYILVSHST  
MNEKILKQYKITKEEESKLSSCDPLDLFNIQNNIPVMYSMFDSLNNLSQLFMEIYE  
KEMVCNLYKLKDNKIKNLLEEAKVSTSVKTLSSSSMQPLSLTPQDKPEVSANDDT  
HSTNLNNSLKLFEINLSLGNKNKIYQELIGQKSSENFYEKILKDSDTFYNESFTNFVK  
SKADDINSINDESKRKKLEEDINKLKKTLQLSFDLYNKYKLKLERLFDKKTGKYYKM  
QIKKLTLLKEQLESKLSLNNPKHVLQNFVFFNKKKEAEIAETENTLENTKILLKHY  
**KGLVKYNGESSPLKTLSEESIQTEDNYASLENFKVLSKLEGKLDNLNLEKKLSYL**  
**SSGLHHLIAELKEVIKKNYTGNSPSENNTDVNNALESYKKFLPEGTDVATVVSSEGS**  
**DTLEQSQPKKPASTHVGAESNTITTSQNVDEVDVIVPVGSEEDYDDLQGVVTG**  
**EAVTPSVIDNILSKIENEYEVLYLKPLAGVYRSLKKQLENNVMTFNVNVKDILNSRFN**  
**KRENFKNVLES DLIPYKDLTSSNYVVKDPYKFLNKEKRDKFLSSYNYIKDSIDTDINF**  
**ANDVLGYKILSEKYKSDLSIKKYINDKQGENEKYLPFLNNIETLYKTVNDKIDLFV**  
**IHLEAKVLNITYEKSNEVEVKIKELNYLKTIQDKLADFKNNNFVGIADLSTDYNHNNL**  
**LTKFLSTGMVFENLAKTVLSNLLDGNLQMLNISQHCVKKQCPQNSGCFRHLDEREE**  
**CKCLLNYKQEGDKCVENPNPTCNENNGGCDADAKTEEDSGSNGKITCECTKPDSP**  
**LFDGIFCSSN**FLGISFLILMLILYSFI

Bold = C-terminal fragment used in Yang (575 amino acids; amino acids 1047-1621;  
encoded by nt 3553-5280 of X02919)